

Application No. 10/743,761
Amendment dated March 15, 2007
Reply to Office Action of December 15, 2006

Docket No.: 2936-0207P

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figs. 5, 7, and 33.

Attachment: Replacement sheets

REMARKS

Claims 1-66 are present in this application. Claims 1, 4, 32, and 45 are independent claims.

Claim Objection

Claim 49 is objected to for minor informalities. Accordingly, Applicant has amended claim 49 to correct the typographical error. Applicant requests that the objection be withdrawn.

Drawings

The drawings showing Figs. 5, 7, and 33 have been objected to. Accordingly, corrected drawings are provided attached hereto. Applicant requests that the drawing objection be withdrawn.

§ 112, second paragraph, Rejection

Claims 1, 3, 12, 17-31, 32-66 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. In particular, the Office Action alleges that the term “setting key,” is not commonly used in the art and the specification does not define the term.

According to the present specification, the term “setting key signals” covers the “encrypted ID code,” as well as the “decryption code” generated by the code generation unit 525. (see original specification at para. 0029).

Because the word “code” appears in each of these terms, Applicant has amended the claims to replace the term “setting key” with –code--.

Applicant requests that the rejection be reconsidered and withdrawn.

§ 112, second paragraph, Rejection

Claims 1 and 4-8 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant respectfully traverses this rejection.

The Office Action alleges that the feature related to the terms “first communication apparatus” and “second communication apparatus” does not make clear which apparatus is the receiver or transmitter. Applicant disagrees. The claim generally covers disclosed embodiments.

Claim 1 covers, for example, the first and second embodiments, shown in Figures 1 and 10, respectively, where the roles of transmitter and receiver can be reversed. In other words, claim 1 covers the case where the first communication apparatus can transmit or receive. Similarly, the claim covers the respective cases where the second communication apparatus can receive or transmit. Applicant submits that the claim clearly recites the features pertaining to the embodiments that are covered by the claim, and thereby is not indefinite.

Applicant requests that the rejection be reconsidered and withdrawn.

§ 112, second paragraph, rejection

Claims 3, 17-31, 38-44, and 53-59 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. At least claims 17, 38, and 53 have been amended to address this rejection. Otherwise, Applicant respectfully traverses this rejection.

The Office Action alleges that the term “mediate” is used in a manner that is inconsistent with the traditional meaning of the word. A dictionary meaning of “mediate” is, --to effect or convey as an intermediate agent or mechanism--.

Consistent with the above stated dictionary meaning, the remote control device 5 as disclosed in the present specification affects the transfer of encrypted ID code α as an intermediate agent. The term “mediate” in claim 3 is used in a manner consistent with this ordinary dictionary meaning, since the claimed electronic device (e.g., remote device 5) serves as an agent for one of the transfer mediums (e.g., to effect the transfer of the encrypted ID code α).

Applicant submits that this feature is clearly expressed in claim 3. Claims 17, 38, and 53 have been amended to clearly express the mediation role of the electronic device as well.

For at least these reasons, Applicant requests that the rejection be reconsidered and withdrawn.

§ 112, second paragraph, rejection

Claims 32-44 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 32 has been amended to clarify the entities of “communication apparatus” and “other communication apparatus.”

The Office Action alleges that it is unclear what is meant by, “communication apparatus” and “other communication apparatus.” In other words, the Office Action appears to indicate that the claims may not make clear which communication apparatus is being referred to.

As amended, Applicant submits that claims 32 and 35-38 consistently recite the term “other communication apparatus.”

Thus, Applicant submits that the claims clearly make specific reference to “other communication apparatus,” and “communication apparatus.”

Applicant requests that the rejection be reconsidered and withdrawn.

§ 112, second paragraph, rejection

Claims 6-8 and 47 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 6, 8, and 47 have been amended to address this rejection.

The Office Action alleges that the claims are indefinite because the feature related to use of “time information” is unclear.

The claimed “time information” in generation of the first setting key and the second setting key covers, for example, the third embodiment of the present invention. Claims 6, 8, and 47 have been amended to clarify the features of the related embodiment covered by the claims.

Applicant requests that the rejection be reconsidered and withdrawn.

§ 102(b) Rejection – Nishimura

Claims 1-18, 23-24, 32-38, 45-53 and 60 have been rejected under 35 U.S.C. § 102(b) as being anticipated by WO 99/50992 to Nishimura (hereafter Nishimura). Applicant respectfully traverses this rejection.

Claims 1 and 4

Claim 1 recites that the setting key signals are transmitted over “different transfer mediums.” Claim 4 recites that a first key signal is transmitted using a “first transfer medium,” and that a second setting key signal is transmitted using a “second transfer medium.”

The present invention provides a solution to a problem where because of Copyright restrictions, conventional AV data communication systems require a one-to-one correspondence between each AV source and each AV receiver (e.g., Fig. 38 in the present application; see para. 0014). The present invention provides an AV data communication system that enables AV data transfer only between an AV data receiver permitted to receive AV data and an AV data transmitter (para. 0018). In an example embodiment, AV data receivers that can hold data communication with an AV transmitter are limited to those which can communicate with the remote controller, and in particular, those which can decrypt the encrypted ID code (para. 0055).

The Office Action refers to Fig. 1 of Nishimura for teaching elements of claims 1 and 4.

In particular, the Office Action alleges that two "lines" shown in Fig. 1 constitute the claimed different transfer medium; the line connecting 11 to 21 is alleged as teaching the first transmission medium, and the line connecting 12 to 22 is alleged as teaching the second transmission medium.

Applicants submit that although there are two lines shown in Fig. 1, that there is only a single interface D-I/F 14 and single transmission medium between D-I/F 14 and D-I/F 24. Fig. 1 shows a digital interface 14 of the set-top box 1 for directly transmitting and receiving data to and from the D-I/F 24 of the VTR device 2. Thus, it is clear that Fig. 1 shows one interface at either end of one transfer medium. This is further evident in paragraph 0152 of US 2004/0068655, which states:

“The transmission and reception of data between the SB1 and VTR device 2 is all performed through the D-I/F 14 and 24. However, in the description below, the explanation about the process is omitted.”

Thus, although Nishimura does appear to show a digital transfer medium between a set-top box and a VTR, Nishimura fails to teach a “different transfer medium” for transmitting one of the code signals.

Accordingly, Applicant submits that Nishimura fails to teach each and every claimed element. Applicant requests that the rejection be reconsidered and withdrawn.

Claims 2, 16

Claims 2 and 16 recite comparable features.

In rejecting claim 2, the Office Action states that, “it is inherent that the transfer medium will be the transfer medium used.” To the contrary, although Nishimura does appear to show a digital transfer medium between a set-top box and a VTR, Nishimura fails to teach a different transfer medium for transmitting one of the code signals.

Accordingly, Applicant submits that Nishimura fails to teach each and every claimed element of at least claim 2, as well as claim 16. Applicant requests that the rejection of at least claims 2 and 16 be reconsidered and withdrawn.

Claims 3, 17

Claim 3 recites the additional element of an electronic device that mediates one of the transfer mediums. Claim 17 recites a comparable feature.

The Office Action refers to an alternative embodiment shown in Fig. 9 of Nishimura, and states that Data transfer means 44 teaches the claimed electronic device. Applicants submit that Fig. 9 shows a serial bus (IEEE 1394 bus) as the transfer medium for the encrypted AV contents. The embodiment in Fig. 9 does not show a “key encryption means” as in the embodiment shown in Fig. 1. Fig. 9 does show a key exchange and authentication means AKE. Thus, unlike the embodiment in Fig. 1, the embodiment in Fig. 9 performs an “encrypting method selection” instead of the “key encryption” of Fig. 1.

Thus, the embodiment shown in Fig. 1 is of a different configuration from the embodiment shown in Fig. 9, and they carry out different methods of transmitting AV contents. Applicant submits that the embodiment in Fig 9 does not make up for the deficiency of failing to

disclose transmitting two or more code signals using different transfer mediums. Accordingly, Fig. 9 of Nishimura does not meet the features of claim 3.

At least for these reasons, Applicant requests that the rejection of at least claim 3, as well as claim 17, be reconsidered and withdrawn.

Claims 32, 45, and 60

Claims 32 and 45 recite a first interface connected to a “first transfer medium” and a second interface connected to a “second transfer medium” other than the first transfer medium, wherein the communication apparatus receives a first setting key signal and a second setting key signal through the first transfer medium and the second transfer medium, respectively. Claim 60 recites an interface connected to a second transfer medium other than a first transfer medium, so as to communicate with a communication terminal that transmits and receives an AV data signal using the first transfer medium.”

The Office Action refers to Figs. 1, 2 and 9 of Nishimura for teaching elements of claims 32 and 45. The Office Action relies on Fig. 9 for teaching elements of claim 60.

In rejecting claims 32, 45, and 60, the Office Action relies on two "lines" for teaching the claimed first transmission medium and the second transmission medium. In particular, the Office Action alleges that the line connecting 11 to 21 teaches the first transmission medium, and the line connecting 12 to 22 teaches the second transmission medium.

Applicant submits that although there are two lines shown in Fig. 1, that there is only a single interface D-I/F 14 and D-I/F 24 at each end of the single transmission medium between D-I/F 14 and D-I/F 24.

Thus, Nishimura fails to show an embodiment having the claimed first and second interfaces, and respective first and second transfer mediums for receiving respective first and second generated code signals, as required in the claims.

Further with respect to claim 32, Fig. 9 of Nishimura shows a contents transmission device 31 and two contents reception devices 32 and 33, connected together through a IEEE 1394 bus. Nishimura's Fig. 9 does not disclose that the contents transmission device 31 includes

a cipher key changeover control unit to decode a communication key signal, as required in claim 32.

In addition, as noted above, Fig. 9 of Nishimura is directed to a different arrangement and method than the embodiment in Fig. 1. For example, Fig. 9 does not show a key encryption means.

For at least these reasons, Applicant submits that Nishimura fails to teach or suggest each and every claimed feature. Accordingly, the rejection fails to establish *prima facie* anticipation. Therefore, Applicant requests that the rejection be reconsidered and withdrawn.

§ 103(a) rejections – Nishimura, Takeda

Claims 19, 29-30 and 61 and 62 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishimura.

Claims 25, 26, 41, 42, 56 and 57 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishimura in view of U.S. Patent No. 6,512,767 to Takeda (hereafter Takeda).

Claims 27, 28, 43, 44, 58, and 59 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishimura, Takeda, and further in view of Leporini.

Claims 19, 25-30, 41-44, 56-59, 61, and 62 are dependent claims. Applicant submits that at least for the reasons above, the rejection fails to establish *prima facie* obviousness. Therefore, Applicant requests that the rejection be reconsidered and withdrawn.

In addition, Applicant submits that Takeda fails to make up for the deficiency in Nishimura of failing to teach the claimed different transfer mediums, wherein the different transfer mediums are for the two or more code signals.

Rather, Takeda discloses a transmission medium connection device used to connect one type of transmission medium to another type of transmission medium. The present invention, on the other hand, uses a plurality of transfer mediums to transmit, or receive, the two or more data signals.

Claim 27

The Office Action alleges that data transfer means 44 of Fig. 9 teaches the claimed electronic device. (e.g., in the rejection of claim 17). Then, with respect to claim 27, which recites that the electronic device is a remote controller, the Office Action relies on teachings in secondary references to Takeda and Leporini. In the rejection of claim 27, the Office Action appears to rely on Leporini for teaching a capability of receiving inputs from an infrared remote control. The Office Action does not address the claimed requirement that the electronic device is a remote controller.

“If the proposed modification or combination of the prior art would change the principal of operation of the prior art invention being modified, then the teaching of the references are not sufficient to render the claims *prima facie* obvious.” *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

Based on the feature recited in claim 27, the Office Action’s allegation that the data transfer means 44 is the claimed electronic device and that Leporini teaches a remote control would require replacement of Nishimura’s data transfer device 44 be replaced by a remote controller of Leporini. Replacement of Nishimura’s data transfer means with a remote controller would involve a change in the principal feature of the embodiment, which requires transfer over a single IEEE 1394 bus.

For at least this reason, Applicant submits that the rejection fails to establish *prima facie* obviousness for claim 27. Applicant requests that the rejection of at least claim 27 be reconsidered and withdrawn.

CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert Downs Reg. No. 48,222 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 

Michael R. Cammarata

Registration No.: 39,491

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant

Attachments

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REPLACEMENT SHEET